CLAIMS

1. An apparatus comprising:

a first processing circuit configured to generate a plurality of reconstructed samples in response to one or more macroblocks of an input signal;

5   a second processing circuit configured to determine a best intra prediction DC predictor for each chroma sub-block of a current macroblock in response to available reconstructed samples adjacent to said current macroblock.

2. The apparatus according to claim 1, wherein said second processing circuit is implemented in a decoding loop of an encoder.

5   3. The apparatus according to claim 1, wherein said first and said second processing circuits comprise a decoder.

4. The apparatus according to claim 1, wherein said apparatus comprises an H.264 compliant decoder.

5.   The apparatus according to claim 1, wherein said second processing circuit comprises:

an intra prediction circuit configured to generate an intra predicted chroma sub-block in response to one of said predictors.

6.   The apparatus according to claim 5, wherein said second processing circuit further comprises:

a control circuit configured to generate said intra prediction DC predictor for each of said chroma sub-blocks in response to said reconstructed samples.

7.   The apparatus according to claim 6, wherein said control circuit is further configured to determine a position of a top edge and a left edge of a chroma block of said current macroblock.

8.   The apparatus according to claim 7, wherein (i) said reconstructed samples comprise a plurality of reconstructed samples in a row adjacent to said top edge of said chroma block.

9.   The apparatus according to claim 7, wherein (i) said reconstructed samples further comprise a plurality of reconstructed samples in a column adjacent to said left edge of said chroma block.

10.   The apparatus according to claim 9, wherein said control circuit is further configured to sum each group of reconstructed samples adjacent to an edge of one of said chroma sub-blocks.

11.   The apparatus according to claim 9, wherein said control circuit is further configured to indicate whether a particular sum of reconstructed samples is available.

12.   An apparatus comprising:

means for generating a plurality of reconstructed samples in response to one or more macroblocks of an input signal;

means for determining a best intra prediction chroma mode
5   0 predictor for each chroma sub-block of a current macroblock in response to available reconstructed samples adjacent to said current macroblock.

13. A method for intra prediction of a chroma sub-block comprising the steps of:

(A) generating a plurality of reconstructed samples in response to one or more macroblocks of an input signal;

5 (B) determining a best intra prediction chroma mode 0 predictor for each chroma sub-block of a current macroblock in response to available reconstructed samples adjacent to said current macroblock.

14. The method according to claim 13, wherein the step (B) further comprises:

generating said best intra prediction chroma mode 0 predictor for each chroma sub-block of a current macroblock in 5 response to a sum of said available reconstructed samples adjacent to each of said chroma sub-blocks of said current macroblock.

15. The method according to claim 13, wherein:

said best intra prediction chroma mode 0 predictor for each chroma sub-block of a current macroblock is selected independently in response to said available reconstructed samples adjacent to said current macroblock.

16. The method according to claim 13, further comprising:

generating said reconstructed samples by inverse quantizing and inverse transforming a compressed bitstream.

17. The method according to claim 13, further comprising:

using a predetermined value for said predictor when no sums are available.

18. The method according to claim 17, wherein said predetermined value comprises a median chroma value.

19. The method according to claim 17, wherein said predetermined value is set to 128.

20. The method according to claim 14, wherein each of said best intra prediction chroma mode 0 predictor for each chroma sub-block of a current macroblock comprises a weighted average of one or more corresponding sums.